

REMARKS

Currently, claims 1, 3-31, and 42-45, including independent claims 1 and 22, remain pending in the present application. Independent claim 1, for example, is directed to a laminate structure comprising an inner substrate that ruptures upon the application of a certain tensile force in a longitudinal direction and extensible first and second outer substrates. The inner substrate is positioned between and bonded to the first and second outer substrates to define at least one pocket having an upper pocket region and a lower pocket region. The tensile force does not cause the first and second substrates to substantially rupture. A first reactant is contained within the upper pocket region, and a second reactant is contained within the lower pocket region. The first reactant and the second reactant are capable of intermixing when the inner substrate is ruptured to cause the reactants to undergo an endothermic or exothermic reaction. If desired, the laminate structure may be utilized as a hot or cold wrap to provide a desired benefit to a user.

In the Office Action, independent claims 1 and 22 were rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,674,360 to Bowen in view of DE 4005718 to Gerhard. Bowen is directed to a hot or cold chemical therapy pack that has two compartments. As shown in Fig. 1, the pack 10 is constructed from two sheets 12 and 14 that are sealed to each other along their peripheries. The pack 10 also contains a tubular compartment 28 that is sealed to opposing ends 24 and 26 of the pack 10. During use, the tubular compartment 28 is ruptured at a weak point 32 by pulling ends 24 and 26 apart or by applying pressure, squeezing, or needing the pack. The rupture of compartment 28 releases its contents for mixing with the contents of compartment

30, thereby causing an exothermic or endothermic reaction. (Cols. 2-4).

As correctly noted by the Examiner, however, Bowen fails to disclose certain aspects of the present claims. Nevertheless, Gerhard was combined with Bowen in an attempt to render obvious independent claims 1 and 22. Gerhard is directed to a cold compress for the treatment of sprains or bruises.¹ As shown in Figs. 1-4, the compress includes pockets 2 filled with a granular material. In use, the bandage is cooled to a sub-zero temperature to freeze water contained in the granular material. The bandage is then applied to the affected part.

Applicants respectfully submit that no motivation would have existed to combine the references in the manner suggested in the Office Action. As noted above, Bowen describes a system that involves activation of a structure to cause the intermixing of chemical reactants. When intermixed, the reactants undergo an endothermic or exothermic reaction. This system is in stark contrast to that of Gerhard, which involves subjecting water to sub-zero temperatures and does not even contemplate the intermixing of chemical reactants. Due to the vast differences in such systems, one of ordinary skill in the art would certainly not have been motivated to "pick and choose" aspects of Gerhard for incorporation into Bowen.

Nevertheless, even if the references are somehow combinable, the resulting combination would still fail to disclose one or more limitations of the present claims. For instance, independent claims 1 and 22 require an inner substrate positioned between and bonded to first and second outer substrates to define at least one pocket having an

¹ Other than the previously submitted Abstract, Applicants do not currently possess an English translation of Gerhard. Nevertheless, Applicants are submitting herewith the German version of Gerhard for the Examiner's consideration.

upper pocket region and a lower pocket region. First and second reactants are contained within the pocket regions. To activate the laminate structure, a tension force may simply be provided that causes the inner substrate to rupture. Once ruptured, the reactants within the pocket intermix to produce the desired result. Thus, a user can beneficially activate the entire laminate structure without having to activate each individual pocket.

Contrary to the claimed configuration, the structure of Bowen includes one reactant within a tubular compartment 28, which is positioned within compartment 30 containing the other reactant. (See e.g., Figs. 1 and 3B). This is similar to the "bag-in-bag" chemical packs discussed in the "Background of the Invention" section of the present application. As discussed therein, the bag-in-bags packs suffer from a disadvantage in that they have a large surface area between the first reactant and the second reactant, as represented by the exterior surface of the smaller bag. Thus, it may be easier for one reactant to migrate through the material of the smaller bag and into the other reactant, thereby resulting in a premature reaction. (Appl. p. 1). Gerhard fails to cure any of the defects of Bowen regarding the pocket configuration. Thus, for at least the reasons set forth above, Applicants respectfully submit that independent claims 1 and 22 patentably define over the cited references, taken singularly or in any proper combination.

The above-cited references were also cited to reject dependent claims 3-21, 24-31, and 42-45. Applicants respectfully submit that at least for the reasons indicated above relating to corresponding independent claims 1 and 22, dependent claims 3-21, 24-31, and 42-45 patentably define over the references cited. However, Applicants also

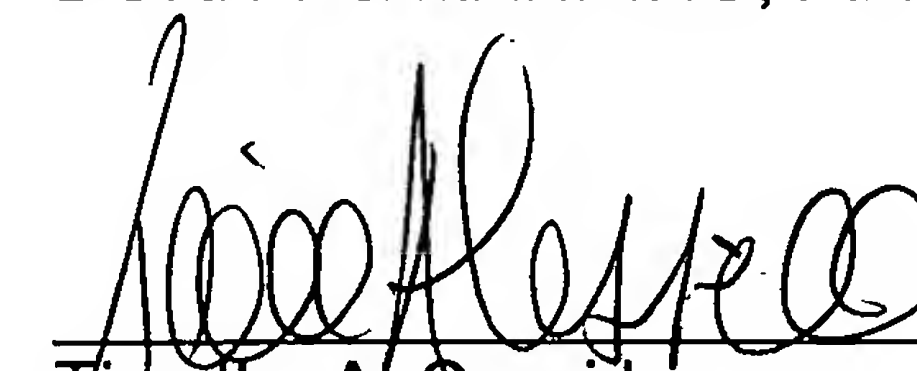
note that the patentability of dependent claims 3-21, 24-31, and 42-45 does not necessarily hinge on the patentability of independent claims 1 and 22. In particular, some or all of these claims may possess features that are independently patentable, regardless of the patentability of claims 1 and 22.

It is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Examiner Rayford is invited and encouraged to telephone the undersigned, however, should any issues remain after consideration of this response.

Please charge any additional fees required by this Response to Deposit Account No. 04-1403.

Respectfully requested,

DORITY & MANNING, P.A.


Timothy A. Cassidy
Registration No. 38,024

DORITY & MANNING, P.A.
P. O. Box 1449
Greenville, SC 29602-1449
Phone: (864) 271-1592
Facsimile: (864) 233-7342

Date: _____

8/19/05